

SMALL HAND-HELD MEDICAL DRILL

ABSTRACT OF THE DISCLOSURE

A surgical instrument having an electric motor is discussed. The motor includes a motor output member, a driven member and a driving member. The driven member is coupled to the motor output member. The driving member includes a winding and a magnetically conductive portion comprising a plurality of laminations. The winding can be a self-supporting winding. The driving member, or at least the magnetically conductive portion thereof, is disposed proximate the driven member such that energizing the driving member imparts motion to the driven member. At least a portion of the driven member includes a magnet material. The magnet material can have a remanence of greater than or equal to about 1 T.